

CLAIMS

What is claimed is:

- 5 1. A client device remotely accessing a packet data network through a server device, the client device comprising:
 - an actuator executing a control command input by a user; and
 - an authenticator application unit storing a user unit code received from the
- 10 server device and comparing the stored user unit code with a user unit code received with the control command, wherein the actuator executes the control command in response to the stored user unit code being the same as the user unit code received with the control command.
- 15 2. The client device of claim 1, wherein the authenticator application unit updates the stored user unit code, using a predetermined algorithm for updating the user unit code at the server device, in response to the stored user unit code being the same as the user unit code received with the control command.
- 20 3. The client device of claim 1, wherein the user unit code is transmitted from the server device to the client device in response to a synchronization command transmitted from the client device to the server device over the packet data network.
- 25 4. The client device of claim 3, wherein the synchronization command is terminated in response to the user unit code not being received by the client device within a predetermined time period.
- 30 5. The client device of claim 1, wherein the authenticator application unit terminates execution of the control command in response to the stored user unit code not being the same as the user unit code received with the control command.

6. A mobile telecommunications system enabling a client device to remotely access a packet data network through a server device, comprising:

a first authentication application unit, positioned within the client device, transmitting a first synchronization command to the server device over the packet data network; and

a second authentication application unit, positioned within the server device, generating a user unit code and transmitting the generated user unit code to the client device over the packet data network in response to the first synchronization command, wherein the generated user unit code is stored by the client device and by the server device and the second authentication application unit transmits a message to the client device over the packet data network, the message including a control command and the user unit code stored in the server device, and wherein the first authentication application unit compares the user unit code received in the message with the user unit code stored in the client device and executes the control command in response to the user unit code stored in the client device being the same as the user unit code received in the message.

7. The mobile telecommunications system of claim 6, wherein the first synchronization command corresponds to a first user input to the client device, and wherein the second authentication application unit generates the user unit code in response to a second synchronization command corresponding to a second user input to the server device, the first and second synchronization commands corresponding to a synchronization process between the first and second authentication application unit, wherein the synchronization process is terminated in response to both the first and second synchronization commands not being input within a predetermined time period.

8. The mobile telecommunications system of claim 6, wherein, upon receipt of the generated user unit code, the first authentication application unit transmits an acknowledgement message to the second authentication application unit, and wherein the second authentication application unit terminates the synchronization
5 process in response to the acknowledgement message not being received within the predetermined time period.

9. The mobile telecommunications system of claim 8, wherein the second authentication application unit stores the generated user unit code in response to the
10 acknowledgement message.

10. The mobile telecommunications system of claim 6, wherein the first authentication application unit updates the user unit code stored in the client device using a predetermined algorithm and transmits an acknowledgement to the second
15 authentication application unit over the packet data network in response to the user unit code stored in the client device being the same as the user unit code received in the message.

11. The mobile telecommunications system of claim 10, wherein the
20 control command is terminated in response to the acknowledgement not being received by the second authentication application unit within a predetermined time period.

12. The mobile telecommunications system of claim 10, wherein the
25 second authentication application unit updates the user unit code stored in the second application unit, using the predetermined algorithm, in response to the acknowledgement.

13. The mobile telecommunications system of claim 6, wherein the control
30 command is terminated in response to the user unit code stored in the client device not being the same as the user unit code received in the message.

14. A method of authentication of a client device utilizing remote multiple access to a server device, comprising the steps of:

generating and transmitting a unique identifier over the packet data network between a client device and the server device;

5 storing the unique identifier at the client device and at the server device;

transmitting a control command including the identifier stored at the server device over the packet data network from the server device to the client device; and

determining at the client device whether the transmitted identifier is the same as the identifier stored at the client device and executing the control command in response to the transmitted identifier being the same as the identifier stored at the client device.

15. The method of claim 14, further comprising the step of updating the identifier stored at the client device and at the server device using a predetermined algorithm.

16. The method of claim 15, wherein the step of updating the identifier further comprises the steps of:

20 updating the identifier stored at the client device in response to the transmitted identifier being the same as the identifier stored at the client device;

transmitting an acknowledgement message over the packet data network from the client device to the server device; and

updating the identifier stored at the server device in response to the acknowledgement message.

17. The method of claim 16, wherein the control command is terminated in response to the acknowledgement message not being received at the server device within a predetermined time period.

18. The method of claim 14, wherein the control command is terminated in response to the transmitted identifier not being the same as the identifier stored at the client device.

19. The method of claim 14, wherein the step of generating and transmitting a unique identifier further comprises the steps of:
entering a synchronization command at the server device and the client device
5 within a predetermined time period;
transmitting the synchronization command over the packet data network from the client device to the server device;
generating the identifier in response to receipt of the synchronization command by the server device and transmitting the identifier from the server device
10 to the client device over the packet data network; and
transmitting an acknowledgement message from the client device to the server device over the packet data network in response to receipt of the identifier, wherein the identifier is stored at the server device in response to the acknowledgement message.

20. The method of claim 19, the step of generating and transmitting a unique identifier further comprising the steps of:
determining whether the synchronization command is received by the server device from the client device within the predetermined time period, and terminating
20 the step of generating and transmitting a unique identifier in response to the synchronization command not being received by the server device from the client device within the predetermined time period ;
determining whether the identifier is received at the client device within the predetermined time period, and terminating the step of generating and transmitting a
25 unique identifier in response to the identifier not being received at the client device within the predetermined time period; and
determining whether the acknowledgement message is received at the server device within the predetermined time period, and terminating the step of generating and transmitting a unique identifier in response to the acknowledgement message not
30 being received at the server device within the predetermined time period.